

552,516

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
21 October 2004 (21.10.2004)

PCT

(10) International Publication Number  
**WO 2004/090233 A1**

(51) International Patent Classification<sup>7</sup>: **E01D 22/00**

(21) International Application Number:  
PCT/KR2004/000409

(22) International Filing Date: 27 February 2004 (27.02.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
10-2003-0021615 7 April 2003 (07.04.2003) KR

(71) Applicant and

(72) Inventor: BYUN, Hang Yong [KR/KR]; 109-1105, Samik Apt., 470, Bongsun, 2-Dong, Nam-Gu, Gwangju 503-062 (KR).

(74) Agent: KIM, Yoon Bae; KIMS AND LEES INTERNATIONAL PATENT, AND LAW OFFICES, 8th Floor, Dongduk Building, 151-8, Kwanhoon-Dong, Jongro-Gu, Seoul 110-300 (KR).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

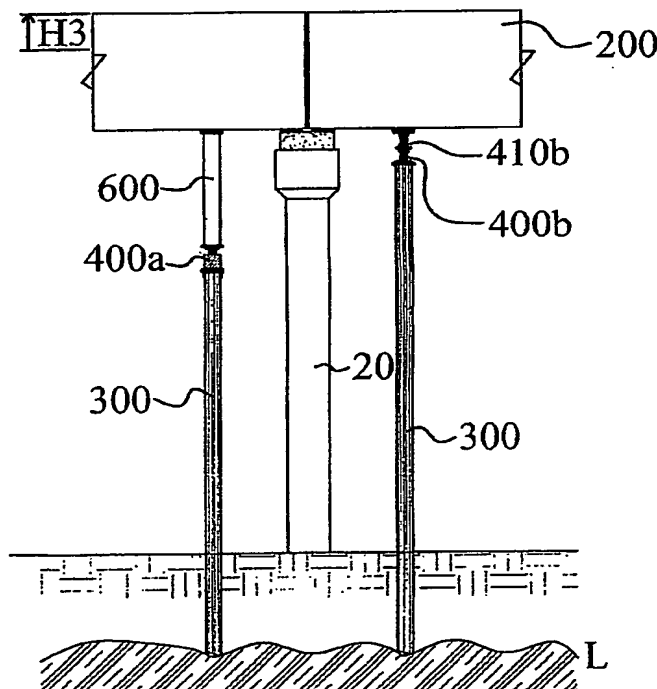
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: REPAIR AND REINFORCEMENT SYSTEM OF EXISTING STRUCTURE USING REACTION FORCE OF PRESSURIZING MEANS AND METHOD THEREOF



(57) Abstract: A system and method of repairing or reinforcing an existing structure using a reaction force of pressurizing means are provided. In a state in which structure supporting means, such as a steel pile, is pressed fit into the ground located under an existing structure to reach a predetermined rigid bearing layer, and the existing structure is lifted by the structure supporting means, a target portion for repair or reinforcement can be repaired or reinforced, irrespective of the construction site or space, without causing any harmful environmental impact.

WO 2004/090233 A1